OCTOBER

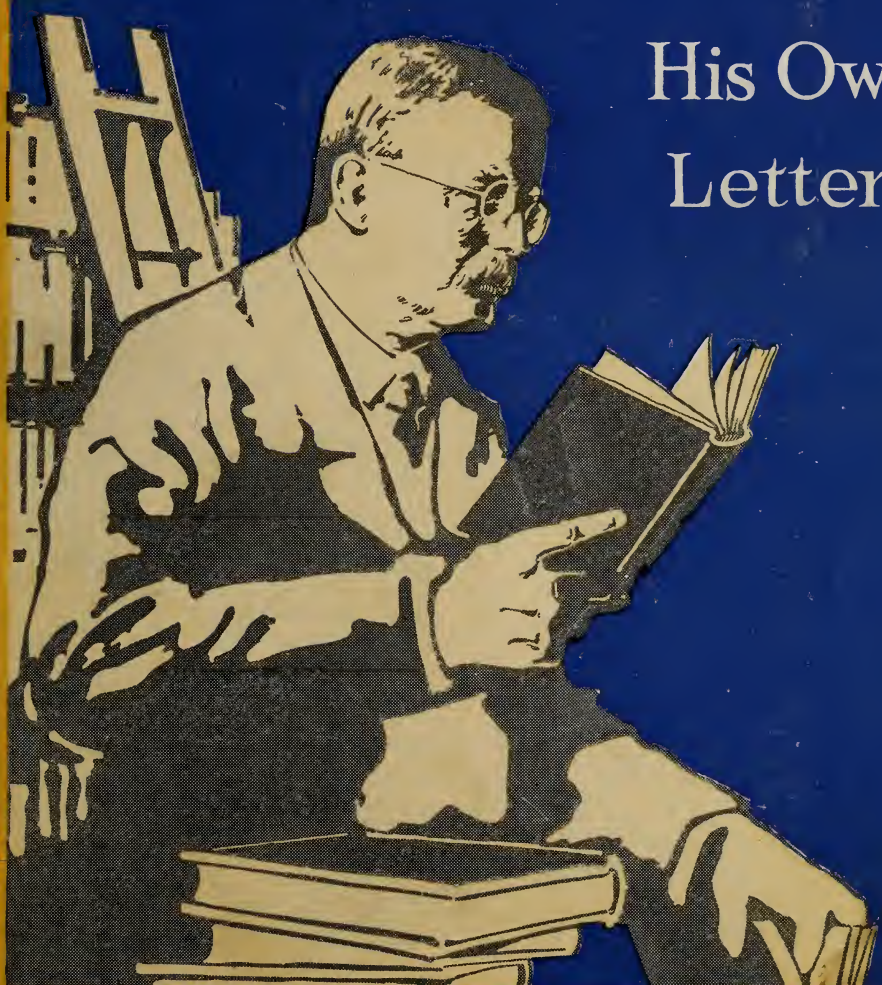
LIVING COSTS AND LABOR
By ALEXANDER DANA NOYES

SCRIBNER'S

MAGAZINE - *Illustrated*

Theodore Roosevelt

His Own Letters



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Henry Bacon.
Architect of the Lincoln Memorial at Washington, D. C.

THE LINCOLN MEMORIAL

HENRY BACON, who was chosen to prepare the design by the Lincoln Memorial Commission, is a New York architect who was born in Illinois and acquired his education as an architect in this country and as a Rotch Travelling Scholar. He is a member of the National Academy of Design.

The Lincoln Memorial Commission, created by Act of Congress, approved February 9, 1911, called for suggestions from the Commission of Fine Arts as to the most suitable site in Washington, D. C., for a memorial and the best methods of selecting the architects, artists, and sculptors to make and execute the designs.

Potomac Park site, by the shore of the Potomac River, was selected, which makes the Lincoln Memorial a part of a general scheme which embraces the Capitol and the Washington Monument. The east front is shown on the opposite page, and on the following pages is told how the great decorations by Jules Guérin and the gigantic statue of Lincoln by Daniel Chester French were carried out. The building is now completed, the decorations in place and the statue is being put in place, and the memorial will soon be ready for dedication.

Looking toward the east end of Mr. Guérin's great studio.
Men stretching one of the two big canvases; above the men the other one is seen guyed out from the wall.

THE GUÉRIN DECORATIONS FOR THE LINCOLN MEMORIAL

HOW THEY WERE DONE

By Jesse Lynch Williams

ILLUSTRATIONS FROM THE DECORATION BY JULES GUÉRIN REPRODUCED IN COLOR AND FROM PHOTOGRAPHS

THERE will be plenty of expert appreciation of the Lincoln Memorial, not only this year, but throughout the years, the centuries to come, unless it is destroyed by revolution. So when the perennial procession of sight-seers at the national capital enter Mr. Bacon's building, approach Mr. French's statue, look up at Mr. Guérin's decorations, our fellow countrymen will know, even though perhaps not all can feel, how noble and reverent and beautiful these celebrated works of art are. They will be told by authority what to think.

But many a visitor will also think about the complex practical problems involved, and will want to know how they were solved. For a thing of beauty is not only a joy forever, but a curiosity for every one, whether he can feel joy from beauty or not.

I had an old friend's privilege of dropping in and looking on during the past three or four years at the various stages of Jules Guérin's share in this notable achievement; and I should think that

Looking west showing the wonderful north light of this huge workshop, also showing one of the two decorations well under way.

the things which interested me in the mere mechanical intricacy of his job would also interest other laymen. Like me they may have gazed at celestial ceilings abroad, not only with a crick in the neck and a certain awed anxiety to get all that was coming to them æsthetically, but also with a vulgar curiosity to know how those historic masterpieces got up there.

The old master's murals were painted directly upon the walls. Our modern masters usually do them on canvas in their studios. They are not put up until finished. Even the most devout worshippers of mediæval art must admit that in this respect at least, art has advanced; that is, if the lovers of old art love it enough to desire its preservation. Witness, for example, the cruel crumbling of Leonardo's "Last Supper," patched and restored a score of times.

Now when a canvas is nearly as long as a tennis court—each of the two decorations in the Lincoln Memorial is twelve feet by sixty feet—it is difficult to find in all New York or elsewhere a studio big enough to hold them. And indeed none was found that suited this fastidious painter. So he had a new atelier built according to plans and specifications of his own. It is eighty-five feet long, and thirty-two wide, with a ceiling twenty-five feet high, and is interesting and unusual in other ways:

A substantial building of modern steel and concrete construction, located where one would never think of looking for studios, at the corner of two of New York's busiest up-town streets, with two car lines intersecting and two traffic policemen, as busy as semaphores in a switch-yard. No passer-by would see it, however, even if told where to look, because it is hidden far overhead upon the roof of a tall office-building. It is near the painter's city home, and can be conveniently reached from his country home in summer. He can get into one subway station at the Grand Central and get out at another in this office-building. Thus, he explains, in rainy

weather he can keep dry all the way. But the real reason, on the contrary, is that it is near the Players' Club.

The studio is approached, like an office, by one of a row of elevators commanded by a starter saying "Up" as numerous hurrying footsteps scrape the floor of the lobby. Ascending past the usual tiers of similar corridors, with glimpses of ground-glass doors and names thereon, the visitor gets out at the top, turns a corner, climbs a flight of stairs, and there, tucked away above the self-absorbed commerce of the busy town, is the spacious quiet of the clear-lighted studio, with the painter equally busy and absorbed in compelling color and line to express Freedom, Fraternity, and Immortality.

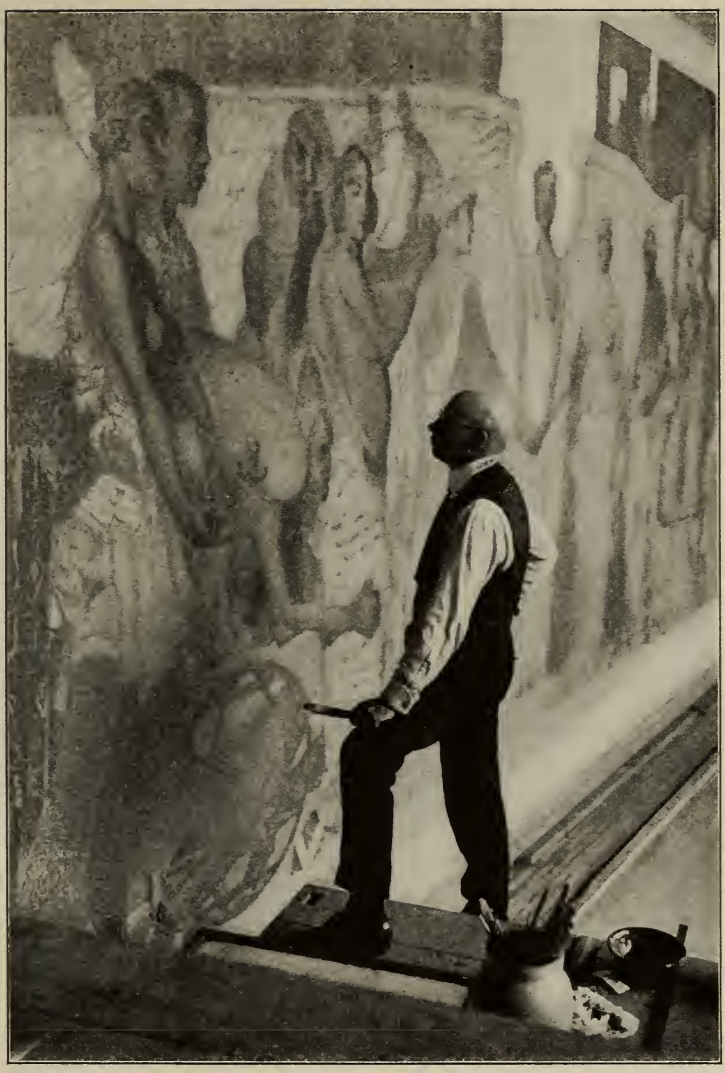
To one who has played with color on canvas in leisure moments it was appalling to contemplate stretching a canvas that weighed three hundred pounds. Well, it required the combined aid of eight able-bodied men. Both canvases were stretched before work was begun on either, because the painter wanted to work on them together, that is alternately, in order to insure color unity. One of the canvases was attached to a swinging frame, so that it could be suspended on high horizontally while work was done on the other. Each could be lowered or raised, when in position, by an arrangement of cogs and pulleys worked by a crank in the corner, like a back-drop at the theatre, except that it was held rigidly in place for painting. Some of this ingenious machinery is of his own invention. In passing, it has often interested me to observe how practical these so-called "impractical artists" are —about things that interest them. Another painter friend of mine has a well-equipped machine-shop adjoining his studio at Cornish, and he turns out work like that of a professional mechanic, ex-

The artist at work on the movable painting scaffold.

On the opposite page the central portion of this composition is reproduced in color.

Central group of the decoration for the south wall of the Lincoln Memorial.

This reproduction was made for SCRIBNER'S MAGAZINE by Charles W. Beck, Jr., direct from the painting before it was removed from Mr. Guérin's studio.



Jules Guérin.

cept that it is better lasting and better looking.

It also impressed me to discover that these two strips of bare canvas cost four hundred dollars apiece. This recital of materialistic details will, I fear, offend certain art-lovers, but it will interest artists. I have tried it on them. And I would rather interest those who can make beauty than those who can buy it.

Now that the work is over the combined weight of these strips of canvas is a hundred and fifty pounds greater than before they were painted. Their gain in value I shall not attempt to estimate. That is a good deal of paint even for such large surfaces, but there is a sound art reason for such prodigality. Wall decorations, of course, are viewed from a distance, and these panels are placed about twenty-eight feet above the average beholder's eye. In the opinion of this painter it is necessary to put the paint on thick to secure the proper carrying quality. If painted as thin as the average framed picture in a home, the color would be ineffective at such a distance as is necessary to make a large-scale com-

position also effective. For the same reason the figures are outlined with a "cutting line." This line, which was noticeable in the studio, entirely disappears when one looks at the decoration in the Lincoln Memorial; but without it the figures themselves would disappear, or, at any rate dissolve more or less into the background.

Before any of the actual work on canvas is begun, however, before a commission is awarded, in fact, sketches of a proposed decoration are always submitted to the jury or committee in charge. In this case they were done in one-twelfth scale. That is, instead of sixty feet long they were sixty inches long, and twelve inches instead of twelve feet wide. These miniatures, complete in design and color, with all the figures drawn to scale, were accepted not only by the committee, but by the artist himself. That is, he changed scarcely anything of importance as he worked the idea out in full-sized detail. Happy is the man who can plan a piece of work and not let the work seduce him into alluring changes.

But before deciding definitely to go ahead, in order to satisfy himself and Mr. Bacon as to the all-important question of scale, photographic enlargements were made of various figures and groups of figures, in various sizes. These solar prints, as they are called, were taken down to Washington and tried out at the Memorial building itself. Figures seven feet high were put up on the wall, then others of seven and a half, eight feet, and so on by gradations of six inches up to figures of ten feet. In this way only, by the actual visual effect, can even the most trained of projective imaginations feel sure how a thing will scale. That is, which size "feels right" in a given space and composition. For such things are fundamentally a matter of emotion, not of mathematics. That is why this peculiar sense, the art-sense,' cannot be made; it must be born—and then cultivated.

The architect and the painter agreed that figures averaging eight and a half feet would scale right. These two usually agree. So far as I know, and I know them both well, they have never yet fought. They agreed, slept over it, and came back to take a fresh and final look next morning to make sure. That decided it. They were sure.

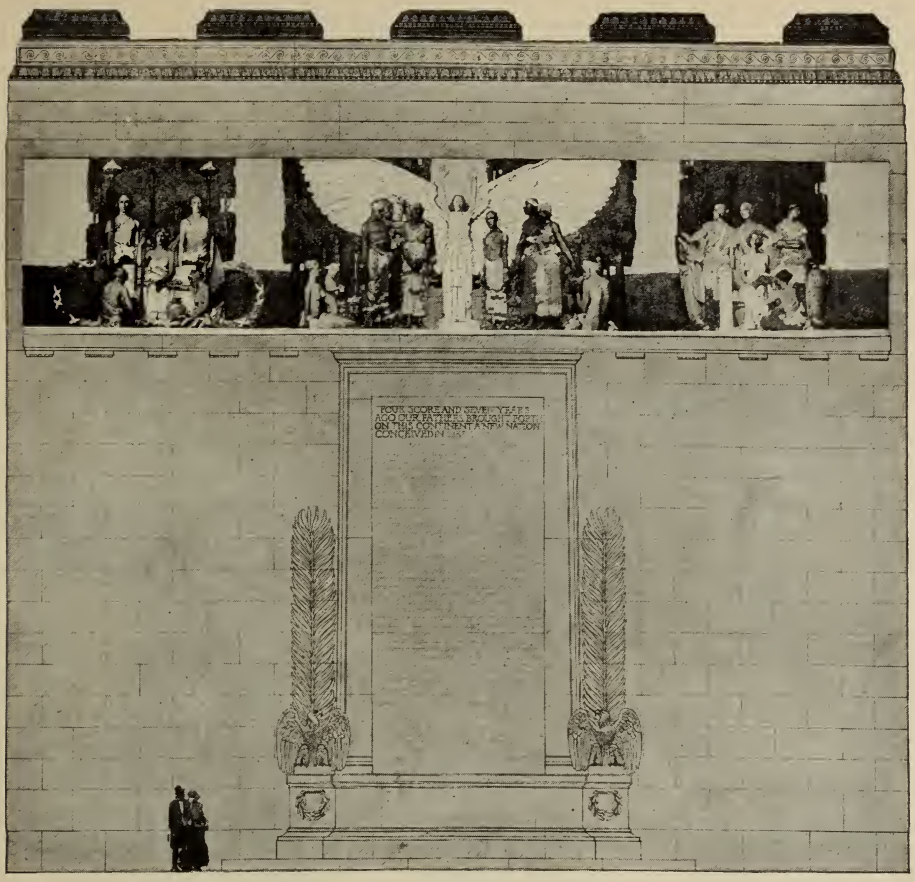
So now all the painter had to do about the decoration was to go home and put in two or three years painting it, which he did.

As in the case of Michael Angelo's frescos, and, I suppose, all other mural decorations since and before, the approved sketch was first "squared up," that is, checkerboarded with thin lines. Then the canvas was covered with squares of the same proportions, namely, twelve times as large, to guide the artist in reproducing his design. Unlike many of the old masters, however, and most of the new, Mr. Guérin employed no young assistant painters, even for filling in broad spaces of simple background, or for carrying out repeated motives. He painted every stroke of it himself, and he takes great pride in this.

There are forty-eight figures in the two panels. This required securing almost as many different models, a considerable task. Because even when you find the type you want, you cannot always hire it. It may be a man in a box at the opera. It may be a sales-girl in a department store.

An unusual problem in this decoration lay in the fact that the Lincoln Memorial, though roofed, is not enclosed. Its colonnaded façade is open summer and winter. The paint had to be put on in such a way that it would stay on, despite the vicissitudes of a notorious national climate. So every ounce of paint was mixed with wax. This was a simple concoction of white wax and kerosene, stirred to the consistency of vaseline; this was mixed with all colors, and has rendered the decorations absolutely weather-proof. The wax will harden, but it will never allow the paint to crack or crumble. Chemically similar wax found in the tombs of the kings in Egypt is still pliable.

Wax has been employed in another interesting way in the Lincoln Memorial. Although light comes in through the open entrance, a top light was desired, but a glass sky-light effect was objectionable. The roof is composed of white marble slabs, three feet by five feet, and only five-eighths of an inch thick. A certain amount of light filtered through, but not



The decoration for the north wall.

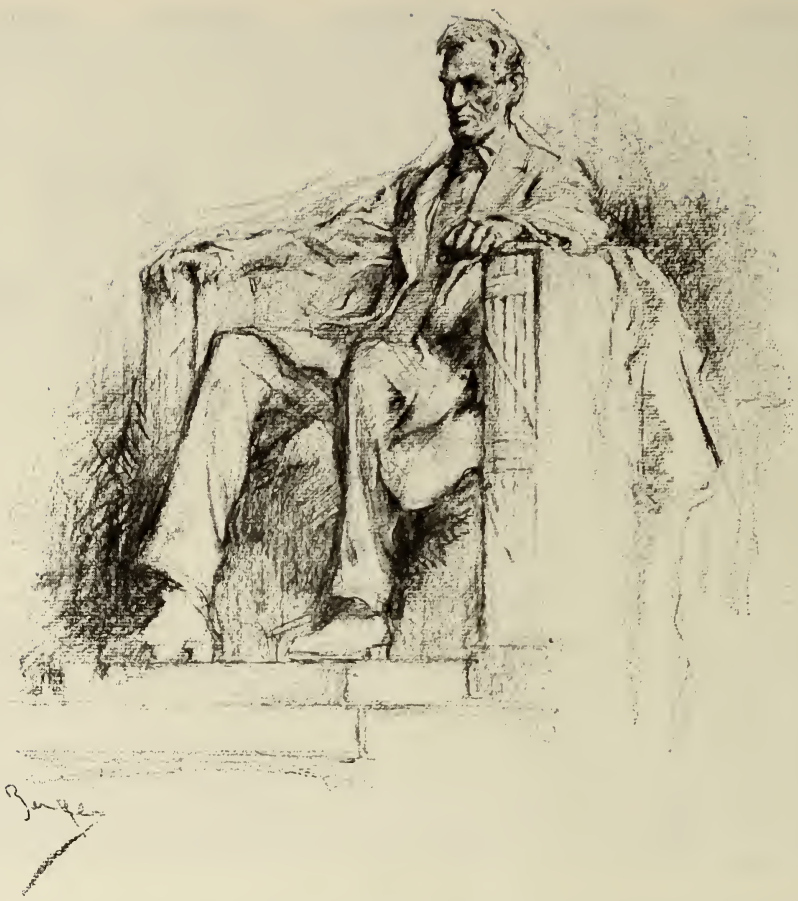
Photographed and set in a drawing of the wall to show relative scale and relation to the wall; the two people, drawn to scale, on the base of the drawing, help to give an idea of the size of the painting.

enough. Consequently these thin slabs were boiled in white wax—in huge iron vats, a dozen or more slabs at a time, boiled for forty-eight hours. The result was somewhat like the difference between the opacity of plain paper and the transparency of oiled paper, but in this case the soft translucence of the marble is like light through alabaster.

When the decorations were at last finished in the studio I was curious and, in fact, quite concerned about getting them down to Washington and up safely on the walls. Two large wooden drums were built, twenty inches in diameter. They were more like reels because they had protecting sides. Upon these the now thoroughly dried canvases were rolled and stoutly covered. Then they were sent off by express.

For the final task of fastening the decorations in their appointed places, first the space was heavily coated with a mixture made of white lead and Venetian varnish, then the drums, lifted upon scaffolding, were gradually unrolled from the centre out, and the canvases pressed home and tamped with bricks covered with felt. Every day for three days they were retamped. Occasional wrinkles could not be avoided, but they could always be carried along from important spots in the canvas to places where a slight cutting out would not matter, because the painter was on hand with his paints to retouch and obliterate all scars.

All of which may now be proved, to the enduring fame of our master mural painter and the "joy forever" of the rest of us, when we make the pilgrimage to this superb shrine of the greatest American.



One of the plaster-cast models for the Lincoln statue by Daniel Chester French.

MAKING A GREAT STATUE

HOW FRENCH'S LINCOLN WAS PUT INTO MARBLE

By W. M. Berger

Illustrations by Mr. Berger

IF the person who in his daily walks passes many times the statues and monuments which adorn the public places of our great cities, giving but little thought to them, were to push open, by chance, the great door leading into one of the studios where these works of art are in process of development, his first feeling would be, perhaps, one of amazement at beholding an interior quite opposite to that which his imagination had pictured.

Here he will not find a trace of the artistic settings and luxurious surroundings associated in his mind with the studios of some of our successful painters. On the contrary, his impression is rather apt to be that of a vast workshop, where, amid the apparent confusion of great masses of rough and uncut marble, fantastic shapes of plaster and clay (surrounded by scaffolding and ladders, forges and benches, and the indescribable litter of chips and broken stone), he may discern dimly through fine clouds of marble dust and

smoke crowds of workmen in blouses, unconventional overalls and paper caps, busily engaged with their humming pneumatic chisels, hammers, and measuring instruments in liberating from these rude blocks of stone the form of some graceful nymph, or, perhaps, the robust figure of one of our distinguished statesmen.

It is in such a studio that the great statue of Abraham Lincoln by Daniel Chester French (the most monumental work in marble ever attempted in America) has been in process of development during the past year. The statue is in the centre of the great Lincoln Memorial Building in Washington, recently completed from the design by Henry Bacon, the distinguished architect of New York.

Interior of one of the principal studios.

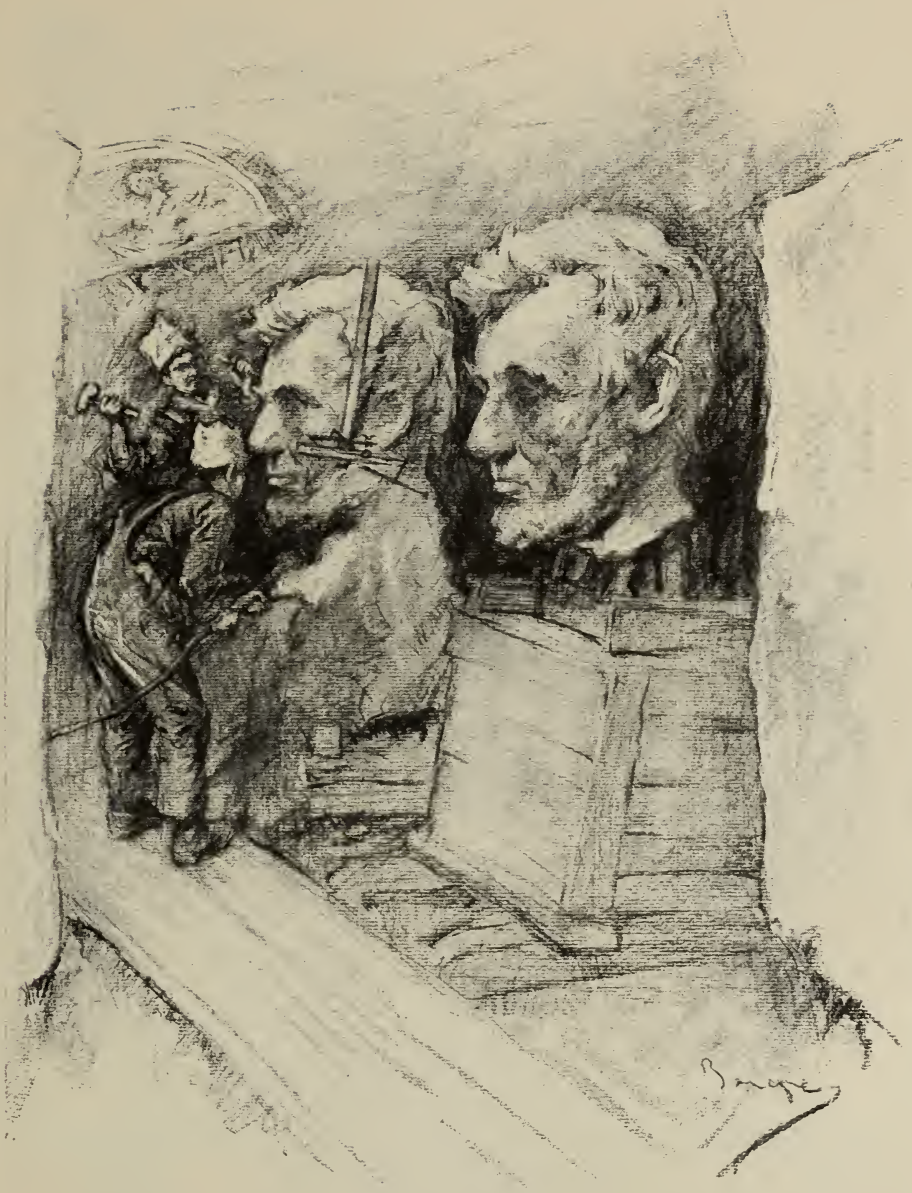
The left hand and leg, partially developed, can be seen. The working model from which the measurements are taken is at the left, partially cut off from view by a huge block of marble.

So great a work as this enormous statue, which with its marble base rises to the imposing height of over thirty feet, could only be intrusted to the hands of marble-cutters of the greatest experience, and for this reason the co-operation of the most skilful sculptors was sought. And so it was decided by Mr. French and his associates to obtain the services of the Piccirilli brothers; and in their spacious studios this great work, occupying a year of incessant labor, has been successfully completed.

This remarkable family of sculptors consists of six brothers, sons of Giuseppe Piccirilli, who came to New York in 1888, after a long apprenticeship as a marble-cutter in Italy, and became at once well known among our best sculptors. The family has been for nearly a generation famous in artistic circles, not alone for the great ability shown in executing the important work of other sculptors, but for the original work accomplished by the different members of the family; for each is an artist of exceptional ability, and their work is in many of our museums and upon some of our greatest public buildings.

Consequently, with their great experience and skill the difficulties which might

Daniel Chester French, who modelled the Lincoln statue, modelling one of the figures for the Victory Arch.



At work on the head from the full-size plaster model.

have embarrassed the ordinary sculptor were easily overcome.

The enormous amount of work entailed in the carving of this, the latest masterpiece by Mr. French, can hardly be realized by a view only of the completed statue which in its simple dignity gives one the impression of ease and simplicity in the execution.

To form an adequate idea of what the construction of a statue of such heroic dimensions means (the height of which, without the pedestal, is twenty-two feet, and its weight two hundred and seventy

A corner of the studio showing the forge and anvil.

In the foreground the marble figure, "The Spirit of the Alps," by Attilio Piccirilli, now in the Metropolitan Museum of Fine Arts, New York.

tons), it must be considered that such a result would be impossible from a single block of marble, if indeed such an enormous block could be found and transported. It was necessary to employ twenty-eight blocks of the finest Georgia marble weighing from five to forty-two tons and measuring, in all, four thousand three hundred and sixty cubic feet!

The original model by Mr. French was but two feet six inches high; later he made a working model, enlarged to five feet, and this was used as a basis of measurement, and was carefully divided and

The Piccirilli brothers at work on the original models for the new Parliament building at Winnipeg.
At the right the Victory and Quadriga by Piccirilli and Paul Wayland Bartlett, now on the Victory Arch, New York.

marked by tiny points (over two hundred thousand of these points being necessary in this instance). By specially constructed instruments these measurements were applied, with the utmost care and minuteness, to the great blocks until by patient cutting an exact reproduction on an immense scale was obtained.

In passing from one studio to another, and seeing the work progressing in separate stages, it might seem that the ultimate joining of so many different parts would present insurmountable difficulties; but so exact had the intricate measurements been made that, when the anxious moment, so long awaited, arrived, each part so perfectly adjusted itself that the completed statue presented to the observer the solid and harmonious work of one hand.

No doubt the most interesting part of the statue, in its disjoined state, is the massive head, which is over four feet in height, and which even in its elementary stages, and presenting almost a Rodin-like effect in its partial relief from the marble, gives the feeling, not of a mass of chiselled stone, but rather, from its life-like dignity, of actually standing before the great statesman. And when the final strokes by the artisan have been given, and Mr. French himself has removed all traces of points and carefully modelled the surfaces to an exact semblance of nature, it is not a difficult thing to bring to mind and feel the force of Emerson's criticism made many years ago when looking at his own bust by French:

"This is indeed the face that I shave."

Not the least interesting thing connected with the work of cutting the Lincoln statue is the great studio, situated in a quiet up-town street of the Bronx, not far from one of the principal avenues.

The lunch hour.

Built around a substantial brownstone house formerly the dwelling of the Piccirilli family, and flanking on either side a picturesque courtyard, rise the great studios.

Once within this busy hive, where the sculptors and their many assistants work early and late, you leave behind for a while the life of the city and feel transported into an entirely foreign atmosphere; and it is not a great stretch of the imagination to feel that this place resembles, with its mountains of marble

and granite, its antique busts and plaster reproductions of Greek and Roman art, more the ancient "botega" where the old Italian masters of the Renaissance carved their masterpieces, than anything which our modern city can offer; for the methods of work employed by the sculptors of to-day have changed but little from that time, with the exception of some few mechanical appliances, which enable them to accomplish their work with greater facility.

Aside from handling the works of other sculptors with which the studios are continually crowded, the six Piccirilli brothers are invariably engaged in their own private studios on the original creations for which they have become famous; and during the past year, while dividing their time between the work on the Lincoln statue and numerous other works of lesser dimensions, they have found time to finish the great statues intended for the new Parliament Building erected in Winnipeg.

The harmonious manner in which they perform their work, one frequently replacing another, has always been a great source of wonderment to their most intimate friends. But with all the close application to the thousand and one details necessary to the management of so great an undertaking as theirs, there is one moment in the strenuous day when all work relaxes and every one is invited to partake of the midday luncheon.

In the basement kitchen of the old house, looking out upon the courtyard, with its urns and pots of ivy, with its satyrs and nymphs peeping through the windows, is the great table spread with its snowy cloth; and seated about (with one of the brothers doing the duty of host, and at the same time frequently acting as *chef de cuisine*, and the indispensable Tom, the majordomo of the establishment, ready to attend to the wants of the guests) are almost always to be found, in company with the sculptors in blouses, paper caps, and all, some of New York's sculptors, architects, and patrons of art.

And as the steaming spaghetti or appetizing raviolli is being passed around you yield yourself quickly to the infectious cheerfulness which surrounds you and listen with delight to the anecdotes and gossip of the studios.

When at last the coffee has been served and the hearty hand-shakes from the brothers and their guests have been given, and you pass again through the studios, casting a last fleeting glance at the imposing statues, you feel how the many difficulties which attend the erection of such a stupendous work as the Lincoln statue are overcome by dint of skilful labor and diligent application.